



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/528,001	03/17/2000	Shiri Kadambi	P108339-00003	3385

32294 7590 07/30/2003

SQUIRE, SANDERS & DEMPSEY L.L.P.
14TH FLOOR
8000 TOWERS CRESCENT
TYSONS CORNER, VA 22182

EXAMINER

HOANG, THAI D

ART UNIT	PAPER NUMBER
----------	--------------

2667

DATE MAILED: 07/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/528,001

Applicant(s)

KADAMBI ET AL.

Examiner

Thai D Hoang

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Application filed on 03/17/2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-2 are rejected under 35 U.S.C. 102(a) as being unpatentable over Muller et al, US patent No. 5,909,686, hereafter referred to as Muller.

Regarding claim 1, Muller discloses a network switch stack configuration, which comprises a plurality of switching elements 100, wherein each of elements 100 comprises a plurality of data ports located at network interface 205, a cascading interface 225 and a CPU interface 215; see figures 1-2; col. 3, lines 39-41; col. 4, lines 38-43 (a first network switch comprising a plurality of data ports, a first stacking port, and a first CPU interface; a second network switch having a plurality of data ports, a second stacking port, and a second CPU interface). In addition, Muller teaches that the network comprises a common CPU 161 connected to each of the interfaces 215 of the switching elements 100 (a common CPU connected to said first CPU interface and said second CPU interface). Muller discloses that the switching elements 100 of subsystems 110 are interconnected to form of cascading as shown in figure 1 by using a number of links 141. Therefore, it indicates that incoming data packets are transmitted from one the data ports of the switching element 100 to any of the data ports of another switching element 100; figures 1-2; col. 4, lines 1-5, 44-57; col. 5, lines 10-21; col. 6, lines 6-30

Art Unit: 2667

(the first stacking port and the second stacking port are communicatively connected, such that incoming packets on any of the plurality of data ports on the first and second switches can be effectively switched to any of the plurality of data ports on either of the first and second network switches.)

Regarding claim 2, Muller teaches that a central processing system (CPS) 160 that is coupled to the individual subsystem 110 through a communication bus 151. The CPS 160 has a direct control and communication interface to each subsystem 110 and provides some centralized communication and control between switch elements; col. 4, lines 24-34. Furthermore, Muller discloses that the CPU 161 may transmit commands or packets to the network switch element 100 via the CPU interface 215. In this manner, one or more software processes running on the CPU 161 may manage entries in an external forwarding and filtering database 140. It indicates that the CPU 161 is configured to program functions on the switching elements, and controls communication between switching elements (common CPU is configured to program functions on the first and second network switch, and wherein the common CPU controls communication between the first and second network switch.)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muller et al, US patent No. 5,909,686, in view of Muller et al, US Patent No. 6,119,196, hereafter referred to as 686 and 196.

Regarding claims 3-5, 686 teaches that the switching elements 100 are interconnect in form of stack through interfaces 205 and 225 connected by a plurality of links 141. 686 does not teach that the cascading interface 225 includes an arbiter for allocating communication bandwidth between the first and second stacking port, and a flow control logic for controlling data flow to and from each of the first and second network switches. However, 196 teaches that a switch 100 comprises a cascading interface 108 connected with a shared memory manager 110 including a buffer memory controller (BMC) 112; see fig. 1. The BMC 112 comprises an arbiter 210 and an arbiter/scheduler 214 (see fig. 2) in order to allocate bandwidth and control data rate for fast ports 222 and slow ports 202. Therefore, it implies that the BMC 112 performs the functions as recited in claims 3-5. However, 196 does not teach that the BMC 112 located at the interfaces 106 and 108. See *In re Japikse*, 86 USPQ 70 (CCPA 1950). It would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt the bandwidth allocating method disclosed by 196 into 686's system for utilizing the bandwidth of the system in order to maximize data transmission through the system.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following references are cited to further show the state of the art with respect to the application:

US Patent No. 5,909,686 A to Muller et al

US Patent No. 6,021,132 A to Muller et al

US Patent No. 6,424,621 B1 to Ramaswamy et al


US Patent No. 6,246,680 B1 to Muller et al

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai D Hoang whose telephone number is (703) 305-3232. The examiner can normally be reached on Monday-Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (703) 305-4378. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Thai Hoang
July 24, 2003


CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600 7/28/03